



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

Douglas W. Domenech
Secretary of Natural Resources

4411 Early Road, P.O. Box 3000, Harrisonburg, Virginia 22801
(540) 574-7800 Fax (540) 574-7878
www.deq.virginia.gov

David K. Paylor
Director

Amy Thatcher Owens
Regional Director

December 16, 2011

Mr. Randall Deane, Facility Manager
Avionics Specialties, Inc.
3367 Earlysville Road
Earlysville, Virginia 22936

Re: Avionics Specialties, Inc., VPDES Permit No. VA0028398, Albemarle County

Dear Mr. Deane:

Your application has been reviewed and appears to be complete. The next steps involve assembling the information necessary to develop the permit limitations and then drafting the permit. Once the draft permit is prepared and the appropriate reviews are performed, I will transmit the draft permit and supporting documentation to you for review. I expect to have this draft permit package to you within the next two months.

The Department of Environmental Quality strives to complete the permitting process in a timely manner. If you have any questions about our procedures or the status of your draft permit, please do not hesitate to call me at (540)574-7805.

Sincerely,

A handwritten signature in cursive script that reads "Bev Carver".

Bev Carver
Environmental Engineer Senior

cc: Cody Hoehna (via email)
Permit Processing File



November 28, 2011

Ms. Beverly Carver
DEQ-VRO
4411 Early Road
P.O. Box 3000
Harrisonburg, VA 22801

RECEIVED
DEQ-VRO
DEC 12 2011

To: _____
FILE: _____
Subject: Avionics Specialties, Inc. VPDES Permit No VA0028398, Permit
Renewal Application

Dear Ms. Carver,

Environmental Systems Service, Ltd. (ESS) has submitted this VPDES permit renewal application for the Avionics Specialties, Inc. wastewater facility located at 3367 Earlysville Road, Earlysville, VA. Avionics Specialties, Inc. is a wholly owned subsidiary company of Aerosonic Corporation of Clearwater, Florida.

Please note that this facility closed down its operation in 2007, and has remained closed since. Mr. Randall Deane with Avionics Specialties, Inc. has been the only employee that has remained at the site since 2009 in order to maintain the facility, and care for the grounds, structures, and assist in relocating facility equipment and disposing of the equipment until the property is sold. The wastewater plant is still fully operational, however there has been little to no flow entering the wastewater plant other than rain water, thus there has been no discharge in several years (since February 2010). Due to the shutdown of the facility there is no current discharge data available and thus no change since the 2006 VPDES permit renewal.

This application information is based on the 2007 permit reissuance application information which was for sanitary wastewater from an aircraft controls manufacturing facility. If the facility is purchased, a change of ownership form will be submitted to DEQ and a determination will be made as to whether a permit modification is necessary based on the activities proposed by the new owner. Should you have any questions or concerns please feel free to contact Mr. Randall Deane at Avionics Specialties, Inc. at 434-996-6250.

Best regards,

A handwritten signature in black ink, appearing to read "CJH", with a long horizontal line extending to the right.

Cody J. Hoehna, Operations Manager
Environmental Services Division

Cc: Mr. Tom Cason, Avionics Specialties, Inc.
Mr. Randall Deane, Avionics Specialties, Inc.

PUBLIC NOTICE BILLING INFORMATION

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice billed to the Agent/Department shown below. The public notice will be published once a week for two consecutive weeks in Daily Progress in accordance with 9 VAC 25-31-290.C.2.

Agent/Department to be billed: _____ Avionics Specialties, Inc.

Owner: _____

Agent/Department Address: _____ 3367 Earlysville Road

_____ Earlysville, Virginia 22936

Agent's Telephone No.: _____ (727)461-3000 Extension 170

Printed Name: _____ Mr. Thomas Cason, Executive Vice President & Chief
_____ Operating Officer

Authorizing Agent – Signature: _____ 

Date: _____ 12/6/11

VPDES Permit No. VA0028398
Avionics Specialties, Inc.

**VPDES/VPA Permit Billing Information Form
for Annual Maintenance Fee**

Facility Name: Avionics Specialties, Inc.

Permit Number: VA0028398

Owner Name: Avionics Specialties, Inc.

Owner Address: 3367 Earlysville Road

Earlysville, Virginia 22936

Billing Contact Name: Randall Deane

Title: Facility Maintenance Manager

Phone Number: (434)996-6250

E-Mail Address: rdeane@aerosonic.com

VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** Avionics Specialties, Inc.

Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** No

Include a topographic map identifying the location of the facility, the property boundaries, and the discharge point.

3. **What is the tax map parcel number for the land where this facility is located?** 03200-00-00-06600

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** 0

5. **ALL FACILITIES: What is the design average flow of this facility?** 0.005 MGD

Industrial facilities: **What is the max. 30-day avg. production level (include units)?** N/A

In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? No

If "Yes", please specify the other flow tiers (in MGD) or production levels: N/A

Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?

6. **Nature of operations generating wastewater:**

Sanitary wastewater from aircraft controls manufacturing facility

100 % of flow from domestic connections/sources

Number of private residences to be served by the wastewater treatment facilities: X 0 1-49 50 or more

0 % of flow from non-domestic connections/sources

7. **Mode of discharge:** Continuous X Intermittent Seasonal

Describe frequency and duration of intermittent or seasonal discharges: 0-2 times per day for 30 minutes per discharge. No discharge on weekends

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**

 Permanent stream, never dry

X Intermittent stream, usually flowing, sometimes dry

 Ephemeral stream, wet-weather flow, often dry

 Effluent-dependent stream, usually or always dry

 Lake or pond at or below the discharge point

 Other: _____

9. **Approval Date(s):**

O & M Manual 09/04/2007

Sludge/Solids Management Plan to be approved with permit reissuance

Have there been any changes in your operations or procedures since the above approval dates? No

10. **Date that a copy of the application was sent to the Virginia Department of Health?** will be sent when submit application to DEQ

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? ☒ Yes ☐ No

Will this facility derive a material from sewage sludge? ☐ Yes ☒ No

If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? ☐ Yes ☒ No

Will sewage sludge from this facility be applied to the land? ☐ Yes ☒ No

If you answered No to both questions above, skip Section C.

If you answered Yes to either, answer the following three questions:

a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
☐ Yes ☒ No

b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? ☐ Yes ☒ No

c. Will sewage sludge from this facility be sent to another facility for treatment or blending? ☒ Yes ☐ No

If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? ☐ Yes ☒ No

If Yes, complete Section D (Surface Disposal).

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.

- a. Facility name: Avionics Specialties, Inc.
- b. Contact person: Randall Deane
Title: Facility Maintenance Manager
Phone: (434) 996-6250
- c. Mailing address:
Street or P.O. Box: 3367 Earlysville Road
City or Town: Earlysville State: Virginia Zip: 22936
- d. Facility location: Street or Route #: 3367 Earlysville Road
County: Albemarle
City or Town: Earlysville State: Virginia Zip: 22936
- e. Is this facility a Class I sludge management facility? Yes ☒ No
- f. Facility design flow rate: 0.005 mgd
- g. Total population served: approx. 123 employees
- h. Indicate the type of facility:
☐ Publicly owned treatment works (POTW)
☒ Privately owned treatment works
☐ Federally owned treatment works
☐ Blending or treatment operation
☐ Surface disposal site
☐ Other (describe):

2. Applicant Information. If the applicant is different from the above, provide the following:

- a. Applicant name: Environmental Systems Service, Ltd.
- b. Mailing address:
Street or P.O. Box: 218 North Main Street
City or Town: Culpeper State: Virginia Zip: 22701
- c. Contact person: Cody Hoehna
Title: Operations Manager
Phone: (540) 825-6660
- d. Is the applicant the owner or operator (or both) of this facility?
☐ owner ☒ operator
- e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
☒ facility ☒ applicant

3. Permit Information.

- a. Facility's VPDES permit number (if applicable):
- b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
Permit Number: VA0028398 Type of Permit: VPDES

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? Yes ☒ No If yes, describe:

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
- Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
 - Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.
6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.
7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? ☐ Yes ☐ No
If yes, provide the following for each contractor (attach additional pages if necessary).
Name: Crozet Sanitary Service, Inc.
Mailing address: PO Box 6915
Street or P.O. Box:
City or Town: Charlottesville State: Virginia Zip: 22906
Phone: (434) 296-8600
Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:
VDH Permit SH-3-101
- If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).
8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old. N/A

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

☒ Section A (General Information)
☒ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
☐ Section C (Land Application of Bulk Sewage Sludge)
☐ Section D (Surface Disposal)

FACILITY NAME: Avionics Specialties, Inc.

VPDES PERMIT NUMBER: VA0028398

I, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Mr. Thomas Cason, Executive Vice President and Chief Operating Officer

Signature  12/6/11 Date Signed

Telephone number (727)461-3000, Extension 170

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION
OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
Total dry metric tons per 365-day period generated at your facility: 0.311 dry metric tons
2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary. N/A
 - a. Facility name:
 - b. Contact Person:
Title:
Phone ()
 - c. Mailing address:
Street or P.O. Box:
City or Town: _____ State: _____ Zip: _____
 - d. Facility Address:
(not P.O. Box)
 - e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons
 - f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:
3. Treatment Provided at Your Facility.
 - a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
 Class A Class B X Neither or unknown
 - b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: Anaerobic digestion in Imhoff Tank
 - c. Which vector attraction reduction option is met for the sewage sludge at your facility?
 Option 1 (Minimum 38 percent reduction in volatile solids)
 Option 2 (Anaerobic process, with bench-scale demonstration)
 Option 3 (Aerobic process, with bench-scale demonstration)
 Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
 Option 5 (Aerobic processes plus raised temperature)
 Option 6 (Raise pH to 12 and retain at 11.5)
 Option 7 (75 percent solids with no unstabilized solids)
 Option 8 (90 percent solids with unstabilized solids)
X None or unknown
 - d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:
 - e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: N/A
4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge). N/A
(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
 - a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
dry metric tons
 - b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
 Yes No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.
(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)
- Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: _____ dry metric tons
 - Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.
6. Shipment Off Site for Treatment or Blending.
(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)
- Receiving facility name: Rivanna Water and Sewer Authority
 - Facility contact: Cary Lang
Title: Wastewater Operations Manager
Phone: (434) 977-2970 ext. 112
 - Mailing address:
Street or P.O. Box: 695 Moores Creek Lane
City or Town: Charlottesville State: Virginia Zip: 22902
 - Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: 0.311 dry metric tons
 - List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:
Permit Number: _____ Type of Permit: VPDES
VA0025518
 - Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? ☒ Yes ☐ No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
☐ Class A ☐ Class B ☒ Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: Digestion
 - Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? ☒ Yes ☐ No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
☐ Option 1 (Minimum 38 percent reduction in volatile solids)
☐ Option 2 (Anaerobic process, with bench-scale demonstration)
☐ Option 3 (Aerobic process, with bench-scale demonstration)
☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
☐ Option 5 (Aerobic processes plus raised temperature)
☐ Option 6 (Raise pH to 12 and retain at 11.5)
☐ Option 7 (75 percent solids with no unstabilized solids)
☐ Option 8 (90 percent solids with unstabilized solids)
☒ None unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: Digestion
 - Does the receiving facility provide any additional treatment or blending not identified in f or g above?
☒ Yes ☐ No
If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:
Blending of other sludge generated at WWTP
 - If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.
 - Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-

away for application to the land? ☐ Yes ☒ No

If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

- k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ☒ Yes ☐ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.

Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. Sludge is removed annually and takes place Monday – Friday during normal business hours. The travel route is attached.

7. Land Application of Bulk Sewage Sludge. N/A

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: _____ dry metric tons
- b. Do you identify all land application sites in Section C of this application? ☐ Yes ☐ No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).
- c. Are any land application sites located in States other than Virginia? ☐ Yes ☐ No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.
- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal. N/A

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons
- b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
☐ Yes ☐ No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.
- c. Site name or number:
- d. Contact person:
Title:
Phone: ()
Contact is: ☐ Site Owner ☐ Site operator
- e. Mailing address.
Street or P.O. Box:
City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons
- g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:
Permit Number: _____ Type of Permit: _____

9. Incineration. N/A

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons
- b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
☐ Yes ☐ No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.
- c. Incinerator name or number:

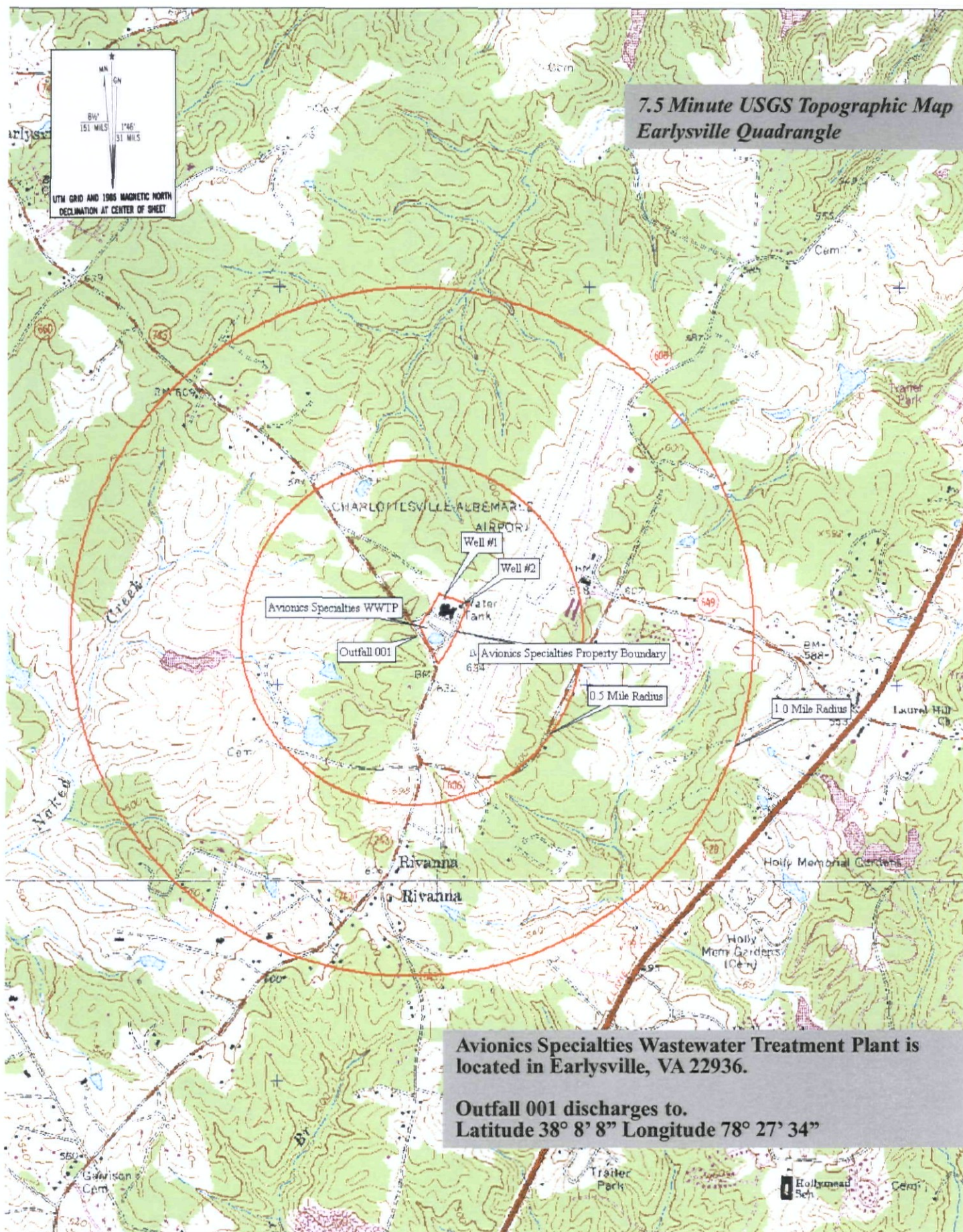
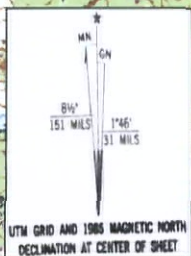
- d. Contact person:
Title:
Phone: ()
Contact is: Incinerator Owner Incinerator Operator
- e. Mailing address.
Street or P.O. Box:
City or Town: State: Zip:
- f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: dry metric tons
- g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:
Permit Number: Type of Permit:

10. Disposal in a Municipal Solid Waste Landfill. N/A

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

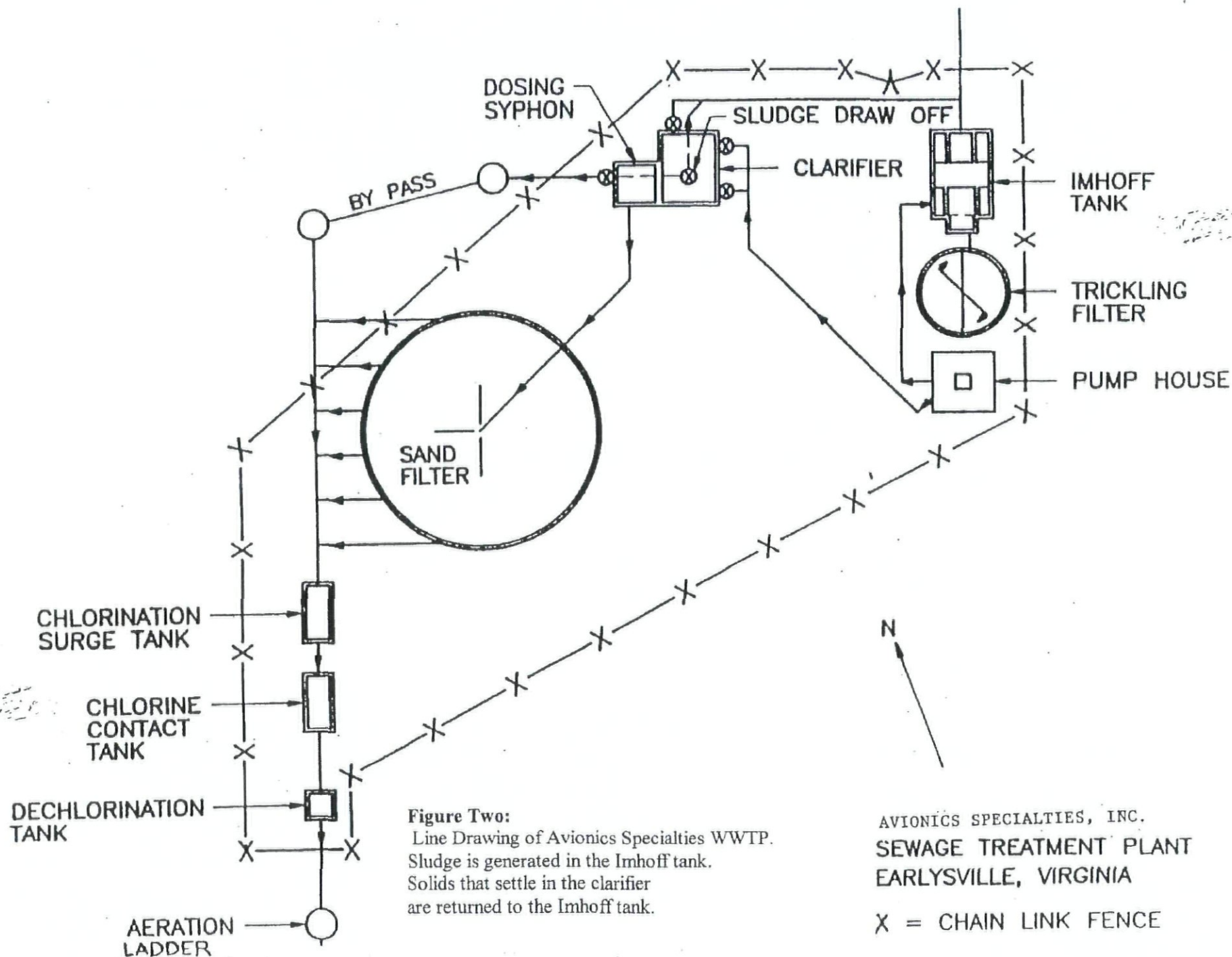
- a. Landfill name:
- b. Contact person:
Title:
Phone: ()
Contact is: Landfill Owner Landfill Operator
- c. Mailing address.
Street or P.O. Box:
City or Town: State: Zip:
- d. Landfill location.
Street or Route #:
County:
City or Town: State: Zip:
- e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:
 dry metric tons
- f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:
Permit Number: Type of Permit:
- g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
 Yes No
- h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? Yes No
- i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? Yes No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported.

**7.5 Minute USGS Topographic Map
Earlysville Quadrangle**



**Avionics Specialties Wastewater Treatment Plant is
located in Earlysville, VA 22936.**

**Outfall 001 discharges to.
Latitude 38° 8' 8" Longitude 78° 27' 34"**



AVIONICS SPECIALTIES, INC.
SEWAGE TREATMENT PLANT
EARLYSVILLE, VIRGINIA

X = CHAIN LINK FENCE



November 28, 2011

Rivanna Water and Sewer Authority
Attn: Norman Wescoat
Manager, Wastewater Operations
P.O. Box 18
Charlottesville, VA 22902

Subject: Notice of Necessary for Domestic Sewage Sludge from Avionics
Specialties WWTP VPDES Permit No. VA0028398

Dear Mr. Wescoat:

In order to be in compliance with the VPDES Permit Regulation (9VAC 25-31-530 G), I am required to notify you that in treating and disposing of the sewage sludge generated at the Avionics Specialties WWTP, you must comply with the VPDES Permit Regulation Part VI, Subpart B – Land Application. Should you have any questions on this matter, please contact the Valley Regional Office (VRO) of the Department of Environmental Quality (DEQ) in Harrisonburg, VA.

Please note that the referenced facility has been shutdown and out of operation since 2007, thus there has been no sewage sludge generated at the facility in many years.

Should you have any questions or concerns please feel free to contact Mr. Randall Deane at Avionics Specialties, Inc. at 434-996-6250.

Best regards,

A handwritten signature in black ink, appearing to read "CJH", with a long horizontal line extending to the right.

Cody J. Hoehna, Operations Manager
Environmental Services Division

Cc: Ms. Beverly Carver, DEQ-VRO
Mr. Randall Deane, Avionics Specialties, Inc.

FORM
2A
NPDES**NPDES FORM 2A APPLICATION OVERVIEW****APPLICATION OVERVIEW**

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

- A. Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
 - 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 - 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

FACILITY NAME AND PERMIT NUMBER:

Avionics Specialties, Inc. - VA0028398

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OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name Avionics Specialties, Inc.

Mailing Address 3367 Earlysville Road, Earlysville, VA 22936

Contact person Randall Deane

Title Facility Manager

Telephone number (434) 996-6250

Facility Address 3367 Earlysville Road, Earlysville, VA 22936
(not P.O. Box)

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name Environmental Systems Service, Ltd

Mailing Address 218 North Main Street, Culpeper, VA 22701

Contact person Cody Hoehna

Title Operations Manager

Telephone number (540) 825-6660

Is the applicant the owner or operator (or both) of the treatment works?

☐ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☒ facility ☒ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES VA0028398 PSD _____

UIC _____ Other _____

RCRA _____ Other _____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
<u>Avionics Specialties</u>	<u>Approx. 123</u>	<u>separate</u>	<u>private</u>
_____	_____	_____	_____
_____	_____	_____	_____
Total population served <u>Approx. 123</u>			

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A.5. Indian Country.

- a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

- a. Design flow rate
- 0.005
- mgd

	<u>Two Years Ago</u>	<u>Last Year</u>	<u>This Year</u>
b. Annual average daily flow rate	<u>0.00091</u>	<u>0.00094</u>	<u>0.00093</u> mgd
c. Maximum daily flow rate	<u>0.00277</u>	<u>0.00185</u>	<u>0.00231</u> mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %
☐ Combined storm and sanitary sewer 0 %

A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.?
- ☒
- Yes
- ☐
- No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1
ii. Discharges of untreated or partially treated effluent 0
iii. Combined sewer overflow points 0
iv. Constructed emergency overflows (prior to the headworks) 0
v. Other N/A

- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

- c. Does the treatment works land-apply treated wastewater?
- ☐
- Yes
- ☒
- No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?
- ☐
- Yes
- ☒
- No

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If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter name: _____

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: _____

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____

mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)?

_____ Yes

_____ ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method: _____

Is disposal through this method _____

continuous or _____

intermittent?

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WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number 001
- b. Location Earlsville 22936
(City or town, if applicable) (Zip Code)
Albemarle Virginia
(County) (State)
38 deg. 8 min. 8 sec. 78 deg. 27 min. 35 sec.
(Latitude) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate 0.0009 mgd
- f. Does this outfall have either an intermittent or a periodic discharge? ☒ Yes ☐ No (go to A.9.g.)
- If yes, provide the following information:
- Number of times per year discharge occurs: est 230-250 days/year
- Average duration of each discharge: 30 minutes; 0-2 time/day
- Average flow per discharge: 0.0009 mgd
- Months in which discharge occurs: Jan - Dec
- g. Is outfall equipped with a diffuser? ☐ Yes ☒ No

A.10. Description of Receiving Waters.

- a. Name of receiving water U.T. of Naked Creek
- b. Name of watershed (if known) VAV-H26R
- United States Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin (if known): _____
- United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____
- d. Critical low flow of receiving stream (if applicable):
acute _____ cfs chronic _____ cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): _____ mg/l of CaCO₃

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A.11. Description of Treatment.

- a. What levels of treatment are provided? Check all that apply.

☒ Primary ☒ Secondary
☐ Advanced ☐ Other. Describe: _____

- b. Indicate the following removal rates (as applicable):

Design BOD₅ removal or Design CBOD₅ removal 90 %
 Design SS removal 90 %
 Design P removal N/A %
 Design N removal N/A %
 Other _____ %

- c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

If disinfection is by chlorination, is dechlorination used for this outfall?

☒ Yes ☐ No

- d. Does the treatment plant have post aeration?

☒ Yes ☐ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.2	s.u.			
pH (Maximum)	8.3	s.u.			
Flow Rate	0.0023	MGD	0.00093	MGD	249
Temperature (Winter)	19.6	C°	8.7	C°	109
Temperature (Summer)	23.2	C°	17.1	C°	123

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5	7	mg/L	4.5	mg/L	12	SW5210	2 mg/L
	CBOD-5	N/A						
FECAL COLIFORM								
TOTAL SUSPENDED SOLIDS (TSS)		1.48	mg/L	0.61	mg/L	12	SW2540	1 mg/L

END OF PART A.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

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N/A

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BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate \geq 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.
_____ gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- The area surrounding the treatment plant, including all unit processes.
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- Each well where wastewater from the treatment plant is injected underground.
- Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ____ Yes ____ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

- List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

- Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

____ Yes ____ No

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N/A

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- c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).
- _____

- d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule	Actual Completion
	MM / DD / YYYY	MM / DD / YYYY
- Begin construction	___/___/___	___/___/___
- End construction	___/___/___	___/___/___
- Begin discharge	___/___/___	___/___/___
- Attain operational level	___/___/___	___/___/___

- e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ____ Yes ____ No

Describe briefly: _____

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: _____

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)							
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN							
TOTAL KJELDAHL NITROGEN (TKN)							
NITRATE PLUS NITRITE NITROGEN							
OIL and GREASE							
PHOSPHORUS (Total)							
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER							

END OF PART B.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

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OMB Number 2040-0086**BASIC APPLICATION INFORMATION****PART C. CERTIFICATION**

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

Basic Application Information packet

Supplemental Application Information packet:

☐ Part D (Expanded Effluent Testing Data)☐ Part E (Toxicity Testing: Biomonitoring Data)☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)☐ Part G (Combined Sewer Systems)**ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Thomas Cason - Executive Vice President and Chief Operating OfficerSignature Telephone number (727) 461-3000Date signed 12/6/11

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO: